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AUGUST 1971

FEED
Situation

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PROCUREMENT SECTION
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ECONOMIC RESEARCH SERVICE

U.S. DEPARTMENT OF AGRICULTURE

Table 1.--Statistical summary of prices, indexes and price ratios, recent years and months

Item	Unit	Season average		1970	1971			
		1968/69	1969/70	July	April	May	June	July
FEED GRAIN AND HAY PRICES								
Corn, No. 3 Yellow, Chicago	Dol. per bu.	1.17	1.25	1.38	1.51	1.51	1.59	1.49
Price received by farmers	do.	1.08	1.15	1.24	1.41	1.38	1.43	1.36
Oats, No. 1 White, Chicago	do.	.636	.624	.693	---	---	.820	.712
No. 2 White, Minneapolis	do.	.641	.632	.641	.681	.726	.715	.663
Price received by farmers	do.	.598	.586	.580	.634	.660	.707	.626
Barley, No. 3, Minneapolis	do.	1.15	1.08	1.12	1.26	1.28	1.26	1.17
Price received by farmers	do.	.911	.872	.902	1.03	1.12	1.15	1.07
Grain sorghum, No. 2 Yellow, Kansas City	Dol. per cwt.	2.00	2.10	2.12	2.55	2.51	2.58	2.54
Price received by farmers	do.	1.70	1.91	1.92	2.19	2.33	2.43	2.37
All hay, baled, price received by farmers	Dol. per ton	23.60	24.70	22.10	26.10	25.60	24.60	24.10
Alfalfa hay, baled, price received by farmers	do.	23.00	23.90	22.60	26.80	26.30	25.20	24.60
PROCESSED FEED PRICES, BULK								
Soybean meal, 44% solvent, Decatur	Dol. per ton	74.10	78.40	82.90	74.25	78.25	81.50	84.25
49-50%, solvent, Decatur	do.	82.50	86.60	92.50	80.50	84.75	87.60	90.00
Cottonseed meal, 41%, expeller, Memphis	do.	65.20	72.50	77.90	68.25	68.80	71.30	74.60
Linseed meal, 34%, solvent, Minneapolis	do.	68.40	67.90	64.90	57.00	57.75	60.50	64.50
Peanut meal, 50%, S.E. mills	do.	80.00	80.40	85.25	74.25	75.75	75.60	75.75
Tankage digester, 60%, Chicago	do.	94.90	109.50	109.10	96.25	95.60	97.50	97.20
Meat meal, 50%, Chicago	do.	91.60	107.10	105.00	92.50	90.60	92.50	92.20
Fish meal, 60%, New York (bagged)	do.	150.60	191.70	180.00	174.50	170.00	154.30	*153.25
Gluten feed, 21%, Chicago	do.	43.70	47.80	44.00	48.50	48.00	48.00	45.00
Brewers' dried grains, 24%, Milwaukee	do.	45.00	48.90	42.50	46.50	48.75	49.20	45.50
Distillers' dried grains, 28%, Cincinnati	do.	55.30	57.90	57.00	61.00	61.00	61.00	64.00
Wheat bran, Minneapolis	do.	38.70	41.80	40.40	45.60	40.10	44.20	37.60
Buffalo	do.	41.60	44.50	40.25	53.25	48.25	48.80	40.50
Wheat middlings, Minneapolis	do.	39.90	42.30	41.10	44.60	39.75	44.60	38.25
Buffalo	do.	44.40	48.30	46.10	54.50	49.50	50.60	44.40
Hominy feed, Chicago	do.	41.10	43.20	46.60	47.90	45.10	47.00	45.50
Molasses blackstrap, New York	do.	23.10	27.40	26.00	29.10	29.10	29.10	29.10
Beet pulp (molasses), Los Angeles	do.	45.50	50.40	46.70	57.70	57.00	55.20	55.40
Alfalfa meal, 17%, dehydrated, Kansas City	do.	42.40	45.30	42.50	52.50	49.25	44.60	45.75
Tallow, inedible prime, Chicago	Cents per lb.	.058	.075	.081	.078	.076	.074	.072
Urea, 42%, N. Ft. Worth (bagged)	Dol. per ton	71.00	71.00	71.00	70.50	70.50	**	**
PRICES PAID BY FARMERS								
Soybean meal, 44%	Dol. per cwt.	5.31	5.52	5.56	5.62	5.63	5.71	5.76
Cottonseed meal, 41%	do.	5.03	5.26	5.36	5.54	5.51	5.55	5.54
Wheat bran	do.	3.48	3.64	3.59	4.14	4.14	4.08	4.02
Wheat middlings	do.	3.59	3.72	3.67	4.24	4.19	4.13	4.08
Broiler grower feed	Dol. per ton	90.00	93.00	94.00	100.00	99.00	100.00	99.00
Laying feed	do.	80.00	83.00	84.00	88.00	88.00	88.00	89.00
Dairy feed, 16%	do.	71.00	73.00	73.00	80.00	80.00	80.00	79.00
Beef cattle feed, 30% and over	Dol. per cwt.	4.65	4.80	4.74	5.02	5.01	5.03	5.00
Hog feed, over 29%	do.	6.36	6.65	6.71	6.72	6.72	6.76	6.82
Alfalfa hay, baled	Dol. per ton	33.60	34.10	32.70	38.10	38.30	37.20	36.50
PRICE INDEXES (1967=100)								
Feed grains, prices received by farmers	Pct.	93	97	101	114	115	120	113
Eleven high-protein feeds, at principal markets	do.	96	105	109	102	104	106	109
Five oilseed meals	do.	96	103	108	98	102	105	109
Tankage, meat meal, and fish meal	do.	107	128	127	114	112	112	111
Gluten feed, brewers' dried grains, and distillers' dried grains	do.	95	103	101	103	104	105	101
Feed, prices paid by farmers	do.	96	100	100	108	108	109	108
LIVESTOCK AND POULTRY/FEED PRICE RATIOS 1/	Average (July)							
Hog/corn, Omaha 2/	1966-70=19.3	18.5	20.4	19.6	11.3	11.8	12.2	13.9
Hog/corn, U.S.	1966-70=19.3	18.9	20.8	19.2	11.3	12.3	12.2	14.0
Beef steer/corn, Omaha 3/	1966-70=22.3	24.0	23.6	23.9	22.3	22.3	21.6	22.6
Milk/feed, U.S.	1966-70= 1.59	1.74	1.75	1.68	1.64	1.60	1.56	1.61
Egg/feed, U.S.	1966-70= 8.3	9.5	9.8	8.6	7.2	6.7	6.5	6.3
Broiler/feed, U.S.	1966-70= 3.3	3.3	3.0	2.9	2.7	2.9	3.0	3.2
Turkey/feed, U.S.	1966-70= 4.7	4.7	5.2	4.8	4.2	4.3	4.4	4.4

1/ Units of corn or other concentrates ration equal in value to 100 pounds of hog or beef steer, one pound of chicken, milk or one dozen eggs. 2/ Based on packer and shipper purchases of hogs and No. 2 Yellow corn; prior to January 1971, No. 3 Yellow corn. 3/ Based on price of beef steers all grades sold out of first hands for slaughter, and No. 2 Yellow corn; replaces Chicago. *Beginning July 1971, 65% protein, imported East coast. **Not reported.

Prices compiled from Chicago Board of Trade, Minneapolis Daily Market Record, Kansas City Grain Market Review, National Provisioner, Feedstuffs, and reports of the Consumer and Marketing Service.

FEED SITUATION

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Approved by
The Outlook and Situation Board
August 23, 1971

The summary and a feed grain supply-use table was released on the above date.

Principal contributors
Malcolm Clough
Jack S. Ross

Economic and Statistical Analysis Division
Economic Research Service

U.S. Department of Agriculture
Washington, D.C. 20250

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SUMMARY

The bumper corn crop, forecast in August at 5.3 billion bushels, will have a major impact on supplies and prices of feed in 1971/72. There are several facets to this indicated record crop:

—It provides, along with big crops of other feed grains, but with reduced old-crop stocks, a much larger total feed grain supply—235 million tons, 27 million more than last year.

—It means that feed crop prices will fall sharply below the high 1970/71 levels, and should attract stepped-up feeding by livestock producers. Corn prices at harvesttime likely will dip below the $1.05 loan rate but rise seasonally later in the year as large supplies move into market channels as well as into government loan.

—It will stimulate a moderate gain in domestic usage over the current season's level of 155 million tons.

—It will improve the competitive position of U.S. feed grains in world markets, even though expected heavy overseas supplies may prevent any increase from the current season's estimate of 19 million tons for U.S. exports.

—It will result in a sharp boost in stock levels. The feed grain carryover of 34 million tons this fall figures to be the lowest since 1954. A year hence it may swell as much as 50% as projected use falls far short of the indicated output.

The August crop forecast reflects conditions on August 1. Blight damage or other unusual events that could occur during the rest of the season could be foreseen.

Adding an estimated corn carryover of 700 million bushels to the August crop forecast gives a 1971/72 corn supply of a little over 6 billion bushels, 18% above last year's short supply and 6% above the previous record in 1969.

The sorghum crop, forecast at 908 million bushels would be 30% above last year's small crop. With a prospective carryover of 100 million bushels on October 1, a crop of this size would bring supplies to a billion bushels, 7% above 1970/71 and near those of most recent years.

Prospective oat supplies are 1.4 billion bushels, about the same as last year.

A sharp reduction in carryover has lowered barley supplies 4% from 1970/71, but they still are large relative to average.

High-protein feed requirements in up coming 1971/72 will be boosted by a prospective increase in grain concentrate feeding. Changes in feeding of grain concentrates and protein feeds tend to be parallel.

The 1971/72 hay supply, estimated at 150 million tons, is down about 2 million from last year. Slightly more roughage-consuming animals point to slightly less hay per animal.

Table 2.--Feed Grains: Supplies and utilization, U.S., av. 1965-69, ann. 1968-71

Marketing Year 1/	Supply				Utilization				
					Domestic use				
	Carry-over	Production	Imports 2/	Total	Feed 3/	Food industry and seed	Total domestic	Exports 2/	Total use
	Million bushels								
	CORN								
Av. 1965-69	1,017	4,387	1	5,405	3,450	377	3,827	591	4,418
1968	1,162	4,393	1	5,556	3,521	386	3,907	536	4,443
1969	1,113	4,583	1	5,697	3,692	394	4,086	612	4,698
1970 4/	999	4,110	5	5,114	3,553	401	3,954	460	4,414
1971 4/	700	5,345	1	6,046					
	GRAIN SORGHUM								
Av. 1965-69	356	726	---	1,082	596	12	608	182	790
1968	289	740	---	1,029	622	13	635	106	741
1969	288	747	---	1,035	654	9	663	126	789
1970 4/	246	697	---	943	694	9	703	140	843
1971 4/	100	908	---	1,008					
	OATS								
Av. 1965-69	302	881	3	1,186	722	103	825	16	841
1968	273	939	2	1,214	726	105	831	8	839
1969	375	950	2	1,327	725	107	832	5	837
1970 4/	490	909	2	1,401	769	102	871	18	889
1971 4/	512	885	2	1,399					
	BARLEY								
Av. 1965-69	133	401	9	543	216	130	346	37	383
1968	138	423	10	571	227	132	359	13	372
1969	199	424	13	636	241	141	382	17	399
1970 4/	237	410	9	646	285	138	423	77	500
1971 4/	156	463	10	629					
	TOTAL FEED GRAINS								
	Million Tons								
Av. 1965-69	46.5	166.9	.2	213.6	129.9	15.7	145.6	22.8	168.4
1968	48.3	168.9	.3	217.5	133.1	16.0	149.1	18.4	167.5
1969	50.0	174.6	.4	225.0	139.0	16.4	155.4	21.2	176.6
1970 4/	48.4	159.0	.4	207.8	138.5	16.4	154.9	18.9	173.8
1971 4/	34.0	200.4	.3	234.7					

1/ October-September for corn and grain sorghum; July-June for oats and barley. 2/ Includes grain equivalent of products. 3/ Residual; includes small quantities for other uses and waste. 4/ Preliminary; based on August 1 indications.

FEED GRAINS

1970/71 Season

Domestic Use Down Slightly

Domestic use of feed grains in the 1970/71 season probably will total slightly below the record 155 million tons consumed last year, responding to higher feed grain prices and less favorable livestock/feed price ratios. The upward thrust in livestock numbers and production, underway in 1969/70, carried forward into the first half of 1970/71. Small 1970 feed grain crops and increased feed costs, however, brought a cutback in hog and poultry production and slowed the uptrend in cattle feeding as the feeding year progressed. Feed grain use has dropped more than seasonally since last fall. Domestic use rose in October-December, but fell below last year's level in April-June. Feed grain consumption in July-September likely will turn out close to last year's level.

Exports Declining

Feed grain exports have declined sharply since the first quarter of the present feeding year. During October-December 6.4 million tons were exported, but increasing foreign competition brought exports down to only 3.3 million tons in April-June, about one-fourth less than in that quarter last year.

U.S. feed grains continue to meet strong competition. The larger 1971 European feed grain crop, estimated to be up 5 to 10% from 1970, will also reduce Europe's import demand. Exports during July-September are running well below the 6.3 million tons shipped in that period last year and may be little, if any, larger than the 3.3 million tons moved in April-June. Total exports for the 1970/71 marketing year probably will be about 2 million tons below the 21 million of the previous year.

Carryover Around 34 Million Tons

Carryover stocks of feed grains into 1971/72 will total around 34 million tons or about 30% less than a year earlier. Stocks of 3 of the 4 feed grains will be down substantially. The exception is oats, which increased to a record 512 million bushels. The total carryover is expected to be about equally divided between government stocks (under loan or owned by CCC) and "free" stocks. This will contrast with most of the past 15 years when the government owned or controlled the larger part of total stocks.

Stocks of the 4 feed grains on July 1 totaled 60.7 million tons, 16½ million less than on that date in 1970. Government stocks, totaling 26 million tons, were down 13 million. "Free" stocks were down only about 3 million tons. With feed grain prices generally above the loan rate, farmers may draw additional grain from government stocks during July-September, probably bringing government holdings below 20 million tons by the end of the marketing year.

1971/72 Season

Indicated Production Up A Fourth

Feed grain crops made good to excellent progress through early August, bringing the 1971 indicated production to a record 200 million tons, 26% above the short 1970 output. Larger acreage, 7% over 1970, and prospective higher yields of each of the 4 feed grains account for the boost in production. However, the presence of blight spores over much of the Corn Belt lends uncertainty to the final outcome of the crop. Blight damage is less severe than last year in the South and the crop is up substantially in that area.

The 107 million acres of feed grains for harvest this year is 7 million more than in 1970 and the largest since 1960. Farmers increased corn acreage for harvest12%, sorghum 19%, and barley 6%, but reduced oats 16%. The combined yield of 1.88 tons per acre is up 18%. This is due in part to a shift to the higher yielding grains—corn and grain sorghum—although increased yields are indicated for each of the 4 grains.

Supply Up, Heavier Usage Seen

Larger production this year will be offset in part by the smaller carryover. August 1 indicated production, plus the 34 million ton carryover, gives a total feed grain supply of 235 million tons, up 13% from 1970/71. A supply of this size would bring sharply lower feed grain prices in 1971/72 and higher livestock/feed price ratios.

The larger crop probably will bring a resumption in the upward trend in domestic use, interrupted in 1970/71 by the short feed supplies and reduced returns from livestock feeding. Livestock and poultry numbers and production will be relatively low this fall and winter, but probably will increase during the feeding year if returns are more favorable. The rate of feeding per animal unit also should increase. Lower priced feed grains may bring some reduction in wheat feeding. Wheat feeding increased to over 200 million bushels in the past 2 years reflecting relatively high feed grain prices.

These changes could add 6 to 10 million tons of feed grains to domestic use. But with increased competition abroad, exports will do well to maintain the 1970/71 level. The prospective U.S. feed grain crop would be ample to meet anticipated usage, as well as bring a substantial increase in carryover stocks, from the 34 million tons this year.

Export Demand Less Promising

Export demand for feed grains for 1971/72 is less promising because of prospective larger crops both in exporting and importing countries. At least for the first half of the year, U.S. feed grains will encounter strong competition from larger supplies of feed grains in Argentina and South Africa. European demand for import will be dampened by prospective big crops of feed grains and wheat. Western Europe's production of barley, oats, and corn in 1971 is currently expected to be up by 5 to 10% above the 71 million tons produced in 1970. An increase of 4 million tons also is indicated for wheat, making more wheat available for feeding.

The big U.S. feed grain supply will mean lower world price levels, as well as lower U.S. prices than those which prevailed during late 1970 and the first half of 1971. It will return feed grains to a more competitive position with other feed ingredients in foreign markets. It also will make the production of feed grains for export much less attractive to many competing exporting countries.

CORN

1970/71 Season

Domestic Use and Exports Lower This Year

The smaller 1970 corn crop and higher prices reduced domestic use and exports in 1970/71. Domestic use is now estimated at a little under 4 billion bushels, about 3% below the record usage in 1969/70. Domestic use was heavy early in the current marketing year, in October-December, exceeding usage a year earlier. But it dropped sharply in the winter and spring. In January-March it was about 100 million bushels below a year earlier and in April-June was down 60 million bushels. Consumption during July-September, continuing relatively low, may about equal last year's small usage for that quarter.

Exports also started out at a rapid pace last fall but dropped sharply this spring and summer. The decline mainly reflected larger exports of other U.S. feed grains and increasing competition from other grain exporting countries. The Argentine crop harvested this past spring totaled 390 million bushels, slightly larger than the 1970 crop and up 110 million bushels from 2 years ago. The South African crop of 334 million bushels was much larger than in either of the past 2 years. Feed grains from these countries have been especially competitive with U.S. grain this spring and summer. Total exports for the year are now estimated at 460 million bushels, about 150 million below the heavy movement of 1969/70.

Smallest Carryover In 2 Decades

The carryover of corn this October 1 is forecast at 700 million bushels, 30% below a year ago and the smallest since 1952. Present indications are that total government owned and loan stocks will be reduced below 400 million bushels by October 1, probably only about half of the total carryover.

Corn: July 1 "free" stocks and July-September use

Item	1969	1970	1971
	Million bushel	*Million bushel*	*Million bushel*
July 1 "free" stocks	1,116	1,012	1,020
July-Sept.:			
Domestic use	782	771	772
Exports	173	154	92
Total	955	925	[1]864
From Gov't stocks[2]	255	341	
"Free" carryover	386	426	

[1] Residual of July 1 stocks (1,564 million bushels) and carryover forcast (700 million). [2] Net withdrawal from CCC stocks and from the loan program.

July 1 corn stocks dropped to 1,564 million bushels, down 359 million from a year ago and the lowest for that date since 1954. All of the reduction from a year ago was in government stocks which totaled 544 million bushels. The 1,020 million bushels privately owned slightly exceeded a year earlier. Government stocks included 126 million bushels of 1967 and 1968 corn under reseal, on July 31 not eligible for extension, most of which will be redeemed by farmers. Farmers also will repay loans on some of the 183 million bushels of 1970 corn under loan on July 1. CCC continues to sell some corn from its stocks. But the small quantity owned by CCC—only 90 million bushels on July 1—will limit sales during the remainder of the marketing year.

Higher Corn Prices Reduce Loan Activity

The smaller 1970 corn crop and generally strong demand boosted the October-July average farm price of corn to $1.39 per bushel 20 cents higher than a year earlier and the highest since 1954. Monthly prices ranged from 24 cents to 38 cents above the loan rate of $1.05 per bushel making the loan program less attractive to growers. While loan activity again exceeded 300 million bushels it was considerably less than the volume placed under loan in the 2 preceding years. Farmers have repaid loans on 139 million bushels of the 1970-crop corn placed in the program through July 31, leaving 183 million under loan on August 1. Farmers will redeem or reseal practically all of the 1970 corn—very little is expected to be delivered to CCC this summer or fall.

Corn loan activity

Activity	Crop		
	1968	1969	1970[1]
	Million bushels	*Million bushesl*	*Million bushels*
Placed under loan[2]	404	398	322
Repaid by farmers	263	290	139
Delivered to CCC[3]	11	2	
Resealed	130	106	[4]183

[1] Preliminary through July 31, 1971. [2] Placed under loan plus any deliveries to CCC under the purchase program. [3] Excludes deliveries from the reseal program. [4] Outstanding.

Table 3.--Feed grain stocks: Government and "free", July 1, 1970 and 1971

Item	Corn		Grain sorghum		Oats		Barley		Total 4 feed grains	
	1970	1971	1970	1971	1970	1971	1970	1971	1970	1971
	Million bushels								Million tons	
Under loan										
Old grain resealed	378	235	34	11	78	119	64	51	14.3	10.0
Under price support from preceding crop 1/	273	219	29	9	114	71	34	10	11.1	7.8
CCC-uncommitted balance	260	90	159	78	104	169	18	29	13.8	8.1
Total Government	911	544	222	98	296	359	116	90	39.2	25.9
"Free" 2/	1,012	1,020	127	80	194	153	121	66	38.0	34.8
Total all positions	1,923	1,564	349	178	490	512	237	156	77.2	60.7

1/ Total quantity placed under loan less repayments and deliveries to CCC through June 30. 2/ Residual; privately held stocks.

Government stocks from operating reports of Agricultural Stabilization and Conservation Service.

Table 4.--Corn: Loans outstanding, cost of redemption and prices in North Central Region, July 1971

Crop of	East North Central States 1/				West North Central States 2/			
	Net under loan July 1	Loan rate 3/	Approximate redemption cost July 1	Difference from $1.41 July 1971 farm price 4/	Net under loan July 1	Loan rate 3/	Approximate redemption cost July 1	Difference from $1.31 July 1971 farm price 4/
	Mil. bu.	Dol. per bu.			Mil. bu.	Dol. per bu.		
1967	3	1.08	1.23	+.18	75	1.02	1.17	+.14
68	3	1.09	1.19	+.22	67	1.03	1.13	+.18
69	5	1.09	1.16	+.25	82	1.03	1.10	+.21
70	36	1.09	1.12	+.29	162	1.03	1.06	+.25
Total	47				386			

PRICES - Farm and Market

	Received by farmers	No. 2 Yellow 5/		Received by farmers	No. 2 Yellow 5/	
		Chicago	Toledo		Omaha	Minneapolis
	Dol. per bu.			Dol. per bu.		
Mid-July						
1970	1.31	1.34-1.38	1.38	1.17	1.27-1.30	1.26-1.27
1971	1.41	1.53	1.46	1.31	1.42-1.45	1.39-1.40

1/ Ohio, Indiana, Illinois, Michigan and Wisconsin. 2/ Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska and Kansas. 3/ Weighted by State's corn production. No. 2 grade 1967-69 crops. 4/ Farm price above (+) or below (-) cost of redeeming loan. 5/ Closing cash quotations about the middle of the month.

Corn under reseal August 1, 1971

Crop	Volume	Approximate redemption costs
	Mil. bu.	*Dol. per bu.*
1967	[1] 66	1.18
1968	[1] 60	1.14
1969	82	1.10
1970	[2] 183	1.07

[1] Not extended after July 31, 1971, [2] Loans outstanding.

Corn prices have weakened this summer as the 1971 crop has made generally good progress. The prices of No. 2 yellow corn at Chicago dropped from $1.60 per bushel in mid-June to below $1.30 in mid-August. Prices this summer and fall will continue to be influenced by prospects for and the final outturn of the 1971 crop. Continued favorable growth of the crop will bring weaker prices as the crop progresses and seasonally low prices this fall at harvesttime.

1971/72 Season

Corn Supplies May Be Record High

Although there is still uncertainty as to the extent of blight damage to the 1971 crop, August 1 indications favor a total corn supply of around 6.0 billion bushels, 18% above last year's small supply. The 1971 crop is forecast at 5.3 billion bushels on the basis of August 1 conditions, up 1.2 billion.

Based on August 1 indications, the corn yield will average 83.0 bushels per acre on the 64.4 million acres for harvest as grain. The yield would be 11.3 bushels above last year's low yield and close to the 83.9 bushels per acre in 1969. The acreage for harvest is 12% more than last year and the largest since 1960. Most of the corn was planted early this year and is more advanced than in 1970 going into the critical period for blight.

A crop of 5.3 billion bushels would bring lower corn prices and more favorable feed price ratios in 1971/72. An expansion of around 5 to 10% in total use is likely, but a crop of this size would be more than adequate to meet total domestic and export requirements. It could also add around 500 to 700 million bushels to the carryover, forecast at 700 million this October 1, the smallest since 1952.

Production Up In All Areas

Based on August 1 indications, production of corn will rise in all areas of the country. Greatest percentage increases are expected in the Southern States where this year's crop will be much larger than last year's small output. For example, the combined production of 4 important Southern corn States—North Carolina, Tennessee, Kentucky and Georgia—is estimated at 295 million bushels, 111 million more than the blight reduced crop of 1970. The much higher percentage of the crop planted with blight resistant seed this year is an important factor in the higher yields in this area.

Larger production also is in prospect for the Corn Belt where both blight and dry weather reduced yields in 1970. Blight remains a threat again in this area and the extent of blight damage will not be fully known until harvesttime. The larger production indicated for the Corn Belt this year is due both to an increase in acreage and prospective higher yields. Indicated production is up about a third in the Western Corn Belt and a fourth in the Eastern Corn Belt.

GRAIN SORGHUM

1970/71 Season

Feeding Alone May Exceed Crop

Grain sorghum disappeared at a fantastic rate during the first 3 quarters of 1970/71. Domestic usage (practically all feeding) lagged early in the season but gained momentum in January-June. Domestic usage in the first 3 quarters was about 650 million bushels, 7% above last year. Allowing for the normal slowdown during July-September, domestic usage alone could reach or perhaps exceed last year's 697-million-bushel crop.

Feeding of sorghum (old crop) in July-September 1971 probably will at least equal the 51 million bushels

Regional corn production

State	Average 1965-69	1970	1971[1]	Percent of	
				Average	1970
	Mil. bu.	*Mil. bu.*	*Mil. bu.*	*Pct.*	*Pct.*
Pa., Md., Va.	126	152	153	121	101
Minn., Mich., Wis.	570	648	789	138	122
Ia., Mo., S.D., Kans., Nebr.	1,629	1,582	2,147	132	136
Ohio, Ind., Ill.	1,605	1,349	1,703	106	126
N.C., Tenn., Ky., Ga.	260	184	295	113	160
All other States	197	195	258	131	132
U.S. total	4,387	4,110	5,345	122	130

[1] Based on August 1 indications.

Table 5.--Feed grains: National average price supports, 1969-71 crops

Grain	1969			1970			1971		
	Loan	Payment	Total 1/	Loan	Payment	Total 1/	Loan	Set-aside payments 2/	Guaranteed support 1/
Corn, per bu.	$1.05	$0.30	$1.35	$1.05	$0.30	$1.35	$1.05	2/$0.32	1.35
Grain, sorghum, per cwt.	1.61	.53	2.14	1.61	.53	2.14	1.73	2/ 0.52	2.21
Oats, per bu.	.63	---	.63	.63	---	.63	.54	---	---
Barley, per bu.	.83	.20	1.03	.83	.20	1.03	.81	---	---

1/ Participants entire production eligible for loan; price support payment made on projected production of 50% of base acreage.

2/ Preliminary payments made soon after July 1. Final payments will be based on the difference between Oct.-Feb. average price received and the guaranteed support. No refund will be required if the difference is less than the preliminary payment.

Table 6.--Feed grains and wheat: Wholesale prices at principal markets, 1969-71

Year beginning	Corn, No. 3 Yellow						Grain sorghum, No. 2		
	Chicago			Omaha			Kansas City		
	1969	1970	1971	1969	1970	1971	1969	1970	1971
	Dol. per bu.						Dol. per cwt.		
October	1.16	1.40		1.13	1.34		2.08	2.22	
November	1.15	1.41		1.13	1.32		2.08	2.21	
December	1.15	1.52		1.13	1.46		2.06	2.28	
January	1.22	1.59		1.18	1.46		2.06	2.38	
February	1.23	1.57		1.18	1.43		2.04	2.36	
March	1.22	1.55		1.15	1.43		2.01	2.33	
April	1.26	1.51		1.20	1.42		2.04	2.55	
May	1.30	1.51		1.21	1.45		1.98	2.51	
June	1.34	1.59		1.30	1.46		2.08	2.59	
July	1.38	1.49		1.28	1.40		2.12	2.54	
August	1.47			1.40			2.17		
September	1.50			1.36			2.31		

Year beginning	Oats, No. 2			Barley, No. 3			Wheat, No. 1 Hard Winter		
	Minneapolis			Minneapolis			Kansas City		
	1969	1970	1971	1969	1970	1971	1969	1970	1971
	Dol. per bu.								
July	.598	.641	.663	1.09	1.12	1.17	1.36	1.45	1.56
August	.595	.666		1.00	1.14		1.45	1.54	
September	.617	.724		1.06	1.18		1.48	1.65	
October	.654	.730		1.08	1.17		1.55	1.62	
November	.655	.739		1.07	1.18		1.54	1.65	
December	.656	.723		1.07	1.20		1.56	1.65	
January	.656	.775		1.06	1.24		1.54	1.64	
February	.648	.754		1.06	1.29		1.58	1.65	
March	.635	.688		1.07	1.25		1.47	1.66	
April	.665	.681		1.09	1.26		1.58	1.63	
May	.680	.726		1.15	1.28		1.56	1.64	
June	.659	.715		1.16	1.26		1.38	1.62	

fed a year ago. The heavy feeding so far this year is primarily the result of increased cattle feeding in the Southwest. Drought in that area brought a heavy early movement of feeder cattle from ranges to feedlots—particularly in Texas. With old crop sorghum supplies tightening, wheat is being used to replace some sorghum in southwest feedlots until new sorghum becomes available in volume.

Cattle on feed in selected Western States

State	July 1, 1971	Change from—	
		July 1, 1970	April 1, 1971
	1,000 head	*Percent*	*Percent*
California	1,007	+ 6	+18
Arizona	492	+14	- 1
New Mexico	171	- 7	+ 5
Texas	1,700	+26	+ 9
Oklahoma	253	+17	+ 5
Kansas	859	+18	+10
Nebraska	1,202	+ 1	- 8
Colorado	871	+13	+ 1
Total or average	6,555	+12	+ 4

Exports Drop Following Heavy Movement

Following a heavy volume in the first 6 months of 1970/71, sorghum exports tailed off to below last year's low level in April-June. Exports in July-September probably will be substantially below the 49 million exported in that quarter of 1970. Exports for the entire season are estimated at 140 million bushels, up about 10% from 1969/70. Sorghum prices averaged 90% of corn prices during the first half of the year—about normal. But sorghum prices have strengthened relative to corn since spring.

Grain sorghum and corn prices at Gulf ports[1]

Year beginning October	Grain sorghum	Corn	% of corn
	Dol. per cwt.		*Pct.*
Average 1961-69	2.19	2.43	90
1970			
July	2.20	2.68	82
July-September	2.35	2.80	84
October-December	2.54	2.82	90
1971			
January-March	2.66	2.98	89
April-June	2.77	2.89	96
July	2.61	2.76	95

[1] No. 2 yellow spot basis, f.o.b. vessel, for prompt or 30 day shipments.

Prices Highest In Nearly 2 Decades

The farm price of sorghum averaged $2.37 a cwt. in July, 45 cents more than last year and the highest for July since 1952. Higher prices this year are principally the result of:

1. Reduced corn and sorghum supplies—down 9 to 10%.
2. Continued increase in cattle feeding.
3. Drought in Southwest, increasing feed concentrate demand in that area.

With substantially more acreage and prospects for a larger crop prices are declining this summer. But, because of strong demand by cattle feeders, sorghum prices probably will continue strong relative to corn and other grains the remainder of the summer and into the fall.

Higher Prices Reduce Loan Activity

A smaller crop and higher prices resulted in less sorghum going under loan in 1970/71. Only about 31 million bushels or 4% of the 1970 crop went under loan and the bulk of this has been redeemed. Onlyabout 11 million bushels of old crop sorghum remain under reseal.

Grain sorghum loan activity

Activity	Crop		
	1968	1969	1970[1]
	Million bushels	*Million bushels*	*Million bushels*
Placed under loan	74	42	31
Repaid by farmers	38	19	24
Delivered to CCC	5	1	
Resealed	31	22	[2]7

[1] Preliminary. [2] Outstanding.

CCC had 68 million bushels of sorghum in its uncommitted inventory in mid-August, 95 million bushels less than on that date a year earlier and the lowest since 1957. CCC's sorghum sales through mid-August totaled 87 million bushels, about 30% more than last year's in the same period. Practically all the sales were for unrestricted usage.

1971/72 Season

The 1971 sorghum crop, forecast at 908 million bushels on August 1, is 211 million larger than 1970's short crop. Coupling the crop to the carryover forecast of 100 million bushels would boost 1971/72 supplies to 1,008 million bushels, 7% above 1970/71. Except for 1970/71, supplies have generally ranged between 1.0 and 1.2 billion bushels since 1959.

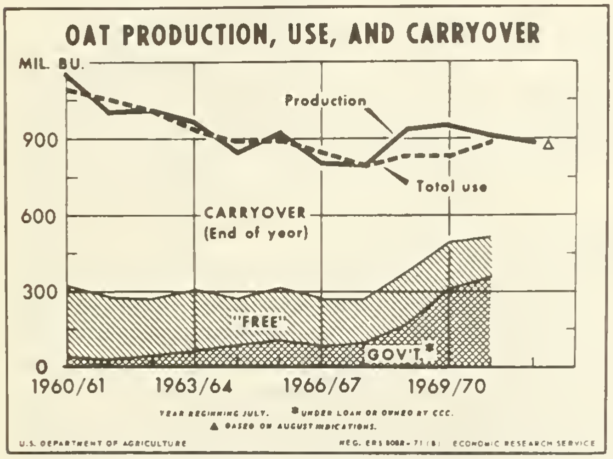
With a larger crop as indicated on August 1, domestic usage will likely make another gain. The upcoming 1971/72 export picture is more difficult to appraise. The big corn crop may hold back any further expansion in sorghum exports since corn will be more competitive. One clearly adverse factor is that, beginning August 1, 1971, the EC raised 1971/72 threshold prices so that after payments of levies, importers will need to pay only about 12 cents per metric ton more for corn than milo, whereas, last year the difference allowed was about $3.75 per ton.

Sorghum prices are declining seasonally from the high level reached in June. Strong domestic demand will temper the extent of the price drop, but the 1971 season average probably will be well below the $2.04 per cwt. received for the 1970 crop. Producers probably will put more sorghum in the loan program, as prices will be nearer the loan rate of $1.73 per cwt. than in 1970.

OATS

Production Drops; Supply Still Large

Oat production in 1971 is forecast at 885 million bushels, some 3% below 1970. However, with the big carryover of 512 million bushels, July 1 supplies for feed and food usage in 1971/72 are quite ample. Totaling 1.4 billion bushels, the supply is 18% above the 1965-69 average.


OAT PRODUCTION, USE, AND CARRYOVER

YEAR BEGINNING JULY. *UNDER LOAN OR OWNED BY CCC.
▲ BASED ON AUGUST INDICATIONS.
U.S. DEPARTMENT OF AGRICULTURE NEG. ERS 8088-71 (8) ECONOMIC RESEARCH SERVICE

Slight Increase In Feed Demand

Domestic feeding of oats in 1971/72 may show a slight increase from the 769 million bushels fed in 1970/71. Prices probably will remain favorable to feed buyers but there will be more competition from large corn and barley crops. Food usage has held fairly stable at around 45-46 million bushels in recent years and will continue close to this level during 1971/72. With the short 1970 corn crop, oat exports rose to 18 million bushels in 1970/71. Exports in 1971/72, however, probably will fall sharply from this level because of reduced foreign demand and larger supplies of other feed grains.

Price Picture Dim

With large supplies (primarily concentrated in the Dakotas and Minnesota) prices received by farmers in 1971/72 probably will average somewhat under the 63 cents a bushel average for 1970-crop oats. Other factors contributing to prospects for lower prices are:

1. Larger crops of other feed grains
2. Lower loan rates.
3. Declining demand for oats, especially for dairy and poultry rations.
4. Transportation costs of moving oats out of surplus producing areas.

Farm prices of oats averaged 63 cents a bushel in July, down 8 cents from the previous month, but 5 cents over July 1970. Contined large oat supplies and prospects for larger production of barley and corn have pushed oat prices down seasonally this summer. The seasonal low is expected to be reached sometime in August or September. With the lower loan rate and more competition from corn, oat prices probably will show less seasonal gain than in 1970/71. Prices rose more than 20% from August 1970 to June of 1971; a normal seasonal rise is 10-12%.

Contined Heavy Loan Activity

Loan activity by oat farmers has been very heavy in recent years. Although prices were above the loan rate during much of 1970/71, producers still placed relatively large quantities (12% of the crop) under price support. Loan activity in 1971/72 likely will continue comparatively heavy but may drop from the high levels of the past 2 seasons. Government stocks (owned and under loan) on July 1 totaled 359 million bushels, a fifth above last year and the highest ever. Only oats among the feed grains showed a rise in both government and privately held stocks in 1970/71.

Oats loan activity

Activity	Crop		
	1968	1969	1970[1]
	Million bushels	*Million bushels*	*Million bushels*
Placed under loan[2]	95	163	109
Repaid by farmers	19	19	28
Delivered to CCC[3]	26	58	16
Resealed	50	86	[4] 65

[1] Preliminary. [2] Placed under loan plus any deliveries to CCC under purchase program. [3] Excludes deliveries from the reseal program. [4] Outstanding.

Oats under reseal
(August 1, 1971)

Crop	Volume	Approx. redem. costs
	Mil. bu.	*Cents per bushel*
1968	33	70
1969	67	67
1970	[1] 65	65

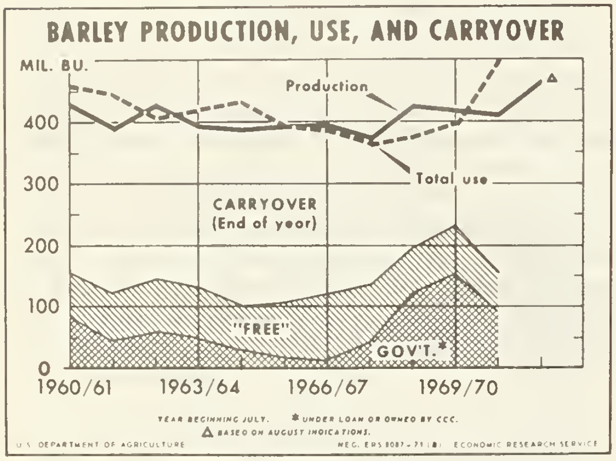
[1] Net under loan, including that in process of being resealed or redeemed.

BARLEY

Another Large Crop

Barley production is estimated at 463 million bushels, 13% above last year and the second largest crop of record. Combine production with the July 1 carryover of 156 million bushels plus an allowance for imports, and the supply for 1971/72 comes to 629 million bushels, 4% below last year.

If the corn crop turns out as indicated in August, barley usage probably will dip below the 500 million bushels of 1970/71. Domestic usage may show little, if any, gain from last year's 423 million. Exports will probably drop substantially below the 77 million bushels exported in 1970/71. Thus, carryover next summer probably will be somewhat larger than the 156 million bushels of a year earlier.



Lower Prices

Farm prices of 1970-crop barley averaged 96 cents a bushel, 9 cents above a year earlier. Prices rose more than seasonally, averaging relatively high during the spring and early summer. Much of the rise was attributed to the short 1970 corn crop. But with the harvest of another large barley crop, prices dropped fairly sharply this summer. The price of No. 3 barley at Minneapolis dropped from $1.15 per bushel in early June to around 90 cents in mid-August, when prices were 6-8 cents below a year ago. A corn crop as large as indicated on August 1 will bring lower demand for barley in contrast to the strong demand this past winter and spring.

Producers To Put More Under Loan

Barley producers probably will be more active in the loan program this year than last when they put only 28 million bushels or 7% of their crop under loan. The 1971 loan rate has been lowered from 83 cents to 81 cents a bushel. Prices will average nearer to the loan than they did in 1970/71.

Barley loan activity

Activity	Crop		
	1968	1969	1970[1]
	Million bushels	*Million bushels*	*Million bushels*
Placed under loan[2]	124	53	28
Repaid by farmers	38	22	19
Delivered to CCC[3]	38	4	
Resealed	48	27	[4]9

[1] Preliminary. [2] Placed under loan plus any deliveries to CCC under purchase program. [3] Excludes deliveries from the reseal program. [4] Outstanding.

Barley under reseal
(August 1, 1971)

Crop	Volume	Approx. redem. costs
	Mil. bu.	*Cents per bushel*
1968	25	99
1969	14	89
1970	[1]9	86

[1] Net under loan including that in process of being resealed or redeemed.

Barley In The 1972 Program

For the benefit of winter barley growers, the Secretary of Agriculture announced July 16 that barley will be included in the 1972 Feed Grain Program. The set-aside requirement will be between 20 and 35% of the base. Exact set-aside percentage for barley will be indicated when the 1972 Feed Grain Program provisions are announced. Barley was not included in the set-aside portion of the 1971 program.

FEED CONCENTRATES

More Feed For Coming Season

Larger prospective feed grain crops point to a sharp recovery in supplies of feed concentrates for 1971/72 following last season's dip.

If the August 1 forecast of the feed grain crop is realized, the 1971/72 feed concentrate supply will be in the area of 275 million tons. This would be substantially above the short supply of 250 million tons in 1970/71 and slightly above the record supply of 1969/70.

Despite last year's small feed grain crop and unfavorable livestock/feed price ratios, feed concentrate consumption in October-June totaled 140 million tons, only a million less than in that period of 1969/70. A 3% increase in grain consuming nimal units accounts for the

Table 7.--Feed concentrate balance, animal units, and feed per unit, average 1965-69, annual 1966-71

Item	Year beginning October 1/						
	1965-69 average	1966	1967	1968	1969	1970 2/	1971 3/
	Million tons						
Supply of all concentrates	250.8	235.1	249.1	255.9	266.7	250.0	275.0
Concentrates fed 4/							
Feed grains	130.3	125.6	126.1	133.8	139.6	138.5	
Wheat and rye	4.9	3.9	4.6	5.5	7.0	7.0	
Byproduct feeds	32.2	31.2	31.1	32.9	34.7	34.8	
Total	167.4	160.7	161.8	172.2	181.3	180.3	
Grain-consuming animal units (Mil.)	111.7	111.5	111.5	114.0	5/115.3	5/118.2	
Supply of all concentrates per animal unit (Tons)	2.24	2.11	2.23	2.24	2.31	2.12	
All concentrates fed per animal unit (Tons)	1.50	1.44	1.45	1.51	1.57	1.53	

1/ Except oat and barley supplies which start July 1.
2/ Preliminary.
3/ Based on August 1, 1971 indications.
4/ Total quantities fed, including domestically produced and imported grains and byproduct feeds.
5/ Revised on the basis of regrouping dairy and beef cattle numbers for 1970 and 1971 in the January 1, 1971 inventory report.

Table 8.--Feed concentrates consumed by livestock and poultry, 1965-70

Item	Year beginning October						
	1965-69 average	1965	1966	1967	1968	1969	1970 1/
Concentrates fed (Mil. tons)							
October-June	129.7	125.8	125.1	123.3	133.0	141.2	140.2
July-September	37.7	35.2	35.6	38.5	39.2	40.1	
Total	167.4	161.0	160.7	161.8	172.2	181.3	
Grain-consuming animal units fed annually (Mil.)	111.7	106.3	111.5	111.5	114.0	115.3	118.2
Concentrates fed per grain-consuming animal unit (Tons)							
October-June	1.16	1.18	1.12	1.11	1.17	1.22	1.19
July-September	.34	.33	.32	.34	.34	.35	
Total	1.50	1.51	1.44	1.45	1.51	1.57	

1/ Preliminary.

continued heavy feed consumption. The rate of feeding per animal unit has run about 3% below last year's pace in response to less favorable price ratios.

Animal units in 1971/72 are forecast to remain near the 118 million of 1970/71. Improved livestock/feed price ratios coupled with larger feed supplies will stimulate heavier feeding, probably bringing feeding rates back to the 1969/70 level.

Livestock and poultry feed-price ratio

Price ratio	July			
	1966-70 average	1969	1970	1971
Hog/corn	19.3	21.1	19.2	14.0
Beef/corn[1]	22.3	25.2	23.9	22.6
Milk/feed	1.59	1.65	1.68	1.61
Broiler/feed	3.3	3.8	2.8	3.2
Egg/feed	8.3	9.4	8.6	6.3
Turkey/feed	4.7	4.7	4.8	4.4

[1] Beef steer/corn ratio Omaha; all others based on U.S. prices.

Wheat Feeding May Drop

Based on August 1 prospects for much larger feed grain crops this year, wheat feeding in the October-September 1971/72 feeding season may fall well below the 230-million-bushel estimate for the 1970/71 season. However, feeding of wheat is expected to hold up quite well this summer as wheat was competitively priced with other grains in many areas of the country during July. Corn prices were high relative to wheat in most areas through mid-July. But from mid-July to mid-August corn dropped 20-25 cents a bushel, making wheat less competitive as a feed. A big corn crop will make wheat less competitive with corn this fall and winter than in 1970/71, reducing wheat feeding in the 1971/72 feeding year.

In July the U.S. average farm price of wheat was 20 cents a cwt. cheaper than corn, about the same difference as in 1969 and 1970.(table 12).In the eastern part of the country, wheat averaged around 25 cents to 50 cents a cwt. below corn. In the West North Central States, wheat was 19 cents under corn. In the Southwest, Mountain, and Pacific areas, wheat prices relative to sorghum and barley were much lower in July than a year earlier. Thus, farmers in most areas have had incentive to feed wheat early this summer.

HIGH-PROTEIN FEEDS

Protein Feeding Maintains Pace

High-protein feeding during the first 9 months of 1970/71 totaled 15.4 million tons, a shade above the 15.3 million in that period of 1969/70. Feeding during April-June was 5.1 million tons, down slightly from a year earlier but up a bit from the previous quarter. Feeding in the July-September quarter probably will about equal the 4.8 million tons fed in that period last year. This would bring the total for the entire season to around 20.2 million tons, about the same as last season's high level.

High-protein feeding

Period	Quantity fed[1]		Price index	
	1969/70	1970/71	1969/70	1970/71
	Mil. tons	*Mil. tons*	*1967=100*	
Oct.-Dec.	5.1	5.3	100	106
Jan.-Mar.	5.0	5.0	110	106
Apr.-June	5.2	5.1	101	106
July-Sept.	4.8	[3]4.8	110	
Oct.-Sept. sea.	20.1	[3]20.2	105	
HPAU (Mil.)[2]	138.4	[3]141.0		
Fed per AU (Lb.)	290	[3]287		

[1] Soybean meal equivalent. [2] High-protein animal units. [3] Forecast August 1971.

High-protein animal units (HPAU) for 1970/71 are estimated at 141 million, 2% above last year. The disappearance rate for protein feed is running about 2 pounds per unit under last year, and probably will wind up the season at slightly less. HPAU's for 1971/72 are forecast at slightly above the number for this year. Any significant increase from this estimate probably would be brought about by expansion in the poultry sectors during the latter part of 1971/72.

Protein feed prices have been relatively high this season and likely will continue fairly strong into fall. An upsurge in demand for protein feed could be in the making for 1971/72. Changes in consumption of feed grains and protein tend to parallel each other. The prospect for a moderate increase in grain concentrate feeding, means more protein feed will be needed for balance.

Soybean Meal Feeding Near Last Year; Prices Strong

Soybean meal feeding of 10.4 million tons during October-June was close to last year's heavy feeding.

Prices during this period averaged $78 per ton, $1 more than in that period of a year earlier. Thus, for a year which saw livestock numbers adjusting in response to tight feed supplies and higher prices, demand for soybean meal held up quite well. Although domestic feeding will make no gain over 1969/70, it is still large compared with most recent years. The 1969/70 season was considered a year of extraordinary demand as domestic use of soybean meal leaped some 18% over the previous year.

Soybean meal feeding and prices

Period	Feeding		Prices—Decatur	
	1969/70	1970/71	1969/70	1970/71
	1,000 tons	*1,000 tons*	*Dollars per ton*	*Dollars per ton*
October-December	3,371	3,670	76.10	79.00
January-March	3,363	3,359	81.50	78.20
April-June	3,512	3,352	73.50	78.00
Total	10,246	10,381	77.00	78.40
July-September	3,335	[1] 3,219	82.70	
Season	13,581	[1] 13,600	78.40	

[1] August 1971 forecast.

Soybean meal feeding, above a year earlier in the first half of 1970/71, fell 5% during April-June. Feeding probably will continue below last year. However, prices will probably remain firm, at least through fall. Soybean prices are relatively high, and with cheaper feed grains, demand for protein feed should be exceptionally strong.

Cottonseed Crushing Still Lags; Prices Rise

Cottonseed crushers are still lagging in their handling of last year's cottonseed crop. During August 1970-June 1971 they crushed about 88% of the cottonseed crop compared with 94% a year ago. For an entire season, mills ordinarily crush about 95% of a cottonseed crop. Even though some cottonseed was exported to Mexico, more than the usual amount of old crop cottonseed probably will be carried over into the 1971/72 season. Addition of these stocks to the August forecast of 4½ million tons of cottonseed production for 1971 will provide somewhat larger supplies for crushers during 1971/72.

Cottonseed meal feeding and prices

Period	Feeding		Prices—Memphis	
	1969/70	1970/71	1969/70	1970/71
	1,000 tons	*1,000 tons*	*Dollars per ton*	*Dollars per ton*
October-December	681	584	69.70	75.10
January-March	570	541	75.70	72.60
April-June	325	334	66.30	69.40
Total	1,576	1,459	70.70	72.40
July-September	218	[1] 241	78.10	
Season	1,794	[1] 1,700	72.50	

[1] August 1971 forecast.

Feeding of cottonseed meal in October-September 1970/71 probably will not match last year's 1.8 million tons because of the reduced crushing. Prices (Memphis) started out at $75 a ton last fall, dropping to around $69 in spring. Prices have since advanced to $80 in early August. If mills continue their crushing lag into the fall, prices likely will remain quite strong.

Fishmeal Supplies and Price Prospects

Fishmeal supplies in October-June were running about 8% behind last year's pace. However, by the year's end in September, supplies may turn out about as large as last year's 563,000 tons. Much depends on how much fishmeal will be imported. Imports during October-June were off about 50,000 tons from 1969/70.

Fishmeal supplies and prices

Year beginning October	Production	Imports	Total	Prices[1]
	1,000 tons	*1,000 tons*	*1,000 tons*	*Dollar per ton*
October-June				
1968	165	476	641	143.30
1969	165	222	387	196.80
1970	187	171	358	178.20
Annual total				
1968	295	540	835	150.60
1969	310	253	563	191.70
1970[2]			575	

[1] New York or East Coast. [2] August 1971 forecast.

Peru has large stocks on hand, and its 1971/72 fishing season gets underway in September. Peru is vigorously promoting sales and fishmeal prices are more attractive to buyers—dropping to $162 a ton in early August compared with nearly $200 during this spring.

Fishmeal imports also face competition from domestically produced fishmeal which is seasonally high in the summer. In addition, demand for meal by the U.S. broiler industry is slow, reflecting broiler production cutbacks.

The U.S. fishing industry is showing signs of increasing its catch. During October-June, domestic fishmeal production was running about 13% above last year's corresponding period. Thus, if fishing conditions this summer remain at least normal, domestic fishmeal production will increase for the fourth consecutive year.

Meat Meal and Tankage Production Up; Prices Fall

Meat meal and tankage production during October-June totaled 1,534,000 tons, 3% above a year earlier. Output for the entire season probably will show a small increase over last year's 2.0 million tons.

Prices of meat meal and tankage in early August were little changed from levels of last spring but were well below those of a year ago. During early August meat meal at Chicago averaged $92 a ton, $16 less than a year earlier. Tankage averaged $98, around $14 less. Hogs and poultry are the principal consumers of meat meal and tankage. Stronger demand for protein feed could strengthen meat meal and tankage prices from current levels in 1971/72.

HAY

Supply Down Slightly

The 1971/72 hay supply, at 150.4 million tons on August 1, is down about 2 million from last year for the first decrease since 1964 (table 9). Roughage-consuming animals, forecast at 98 million units, are up slightly to a near-record high. These changes decrease the available supply per animal unit to 1.54 tons, the smallest since 1966. Assuming an average disappearance rate of 1.31 tons per animal unit, 1971/72 hay consumption would total about 128 million tons, 2 million less than in 1970/71.

Hay growth was delayed by a cool, damp spring, and summer cuttings were hampered by heavy showers in the North Central and Southern States. However, production was estimated at 128 million tons on August 1, virtually the same as the large crops of the past 2 years.

In the major hay producing areas of the North Central States, production is forecast at 65 million tons, 2% above 1970 and near the 1965-69 average. With lower prospective yields, production is down 4% in both the North Atlantic and South Central regions. Haying operations in Texas have been hard hit by dry weather. But by the first week of August, heavy rains improved the prospects for later cuttings. Several Texas counties have been made eligible for the USDA Emergency Livestock Feed Program, hay and transport aid programs, and grazing and hay privileges on CAP land. Production in the Western States is forecast at 31 million tons, the same as 1970. Acreage and prospects for yields are little changed from 1970.

Prices High This Summer

Hay prices received by farmers averaged $24 per ton in mid-July, $2 more than last year and only $2 below the April 1971 season peak. Higher hay prices are due in part to the tight 1970/71 feed supplies and less favorable pasture conditions this spring and summer. Although 1970 hay production was virtually the same as the large 1969 crop, sales of 1970 hay from farms increased 4%. Thus, cattle producers and dairymen may have depended a little more on roughages in their feed programs in lieu of the high-priced grain concentrates. Demand for hay probably will continue fairly strong, but prices may not rise as much seasonally as they did in 1970/71 when hay rose 18% from the July 1970 low.

Table 9.--Hay: Acreage, supply and disappearance per animal unit, United States, average 1965-69, annual 1963-71

Year beginning May	Acreage harvested	Yield per harvested acre	Production	Carryover May 1	Total supply	Disappearance	Roughage consuming animal units	Supply per animal unit	Disappearance per animal unit
	Mil. acres	Tons	- - - - -	Mil. tons	- - - - -		Million	- - Tons	- -
Average 1965-69	64.5	1.94	125.2	22.1	147.3	123.7	94.4	1.56	1.31
1963	66.4	1.77	117.5	23.1	140.6	120.8	96.0	1.46	1.26
1964	67.4	1.76	118.8	19.8	138.6	122.0	95.7	1.45	1.27
1965	67.7	1.85	125.5	16.6	142.1	119.4	94.7	1.50	1.26
1966	65.1	1.86	121.0	22.7	143.7	121.8	94.4	1.52	1.29
1967	64.7	1.95	126.3	21.9	148.2	123.0	94.4	1.57	1.30
1968	62.7	2.00	125.5	25.2	150.7	126.8	93.8	1.61	1.35
1969	62.1	2.06	127.7	23.9	151.6	127.3	94.5	1.60	1.35
1970 1/	63.2	2.02	127.9	24.3	152.2	129.9	96.8	1.57	1.34
1971 2/	63.6	2.01	128.1	22.3	150.4				

1/ Preliminary. 2/ August 1 indications.

Table 10.--Hay: Production by regions, average 1965-69, annual 1965-71

Year	North Atlantic	East North Central	West North Central	South Atlantic	South Central	Western	United States
			1,000 tons				
Average 1965-69	11,921	22,688	41,755	5,278	15,218	28,352	125,212
1965	11,000	22,437	43,471	5,170	15,050	28,408	125,536
1966	11,973	22,791	40,531	4,699	14,343	26,690	121,027
1967	12,569	22,237	41,347	5,361	15,606	29,180	126,300
1968	12,032	23,344	40,415	5,557	16,158	28,016	125,522
1969	12,033	22,629	43,009	5,603	14,933	29,468	127,675
1970 1/	12,508	22,356	41,148	5,591	15,744	30,552	127,899
1971 2/	11,970	21,231	43,538	5,631	15,040	30,641	128,051

1/ Preliminary. 2/ August 1 indications.

Table 11.--Hay: Average prices received by farmers, by regions July 1971 with comparisons

Region	Hay per ton				
	July			1971 as a percentage of-	
	Average 1965-69	1970	1971	Average 1965-69	1970
	- - - -	Dol. per ton	- - - -	- - - Pct. - - -	
New England	30.20	---	---	---	---
Middle Atlantic	26.00	27.30	27.90	107	102
East North Central	21.10	20.00	22.20	105	111
West North Central	18.70	18.20	19.10	102	105
South Atlantic	31.10	31.70	34.00	109	107
East South Central	25.40	26.60	27.70	109	104
West South Central	21.60	24.00	28.70	133	120
Mountain	22.80	22.90	25.50	112	111
Pacific	24.80	26.90	29.80	120	111
United States (av.)	22.10	22.10	24.10	109	109

Prices Up In All Areas

July hay prices were up from a year earlier in all areas of the Nation. Most notable was the West South Central region, where dry weather sharply reduced hay supplies; prices in July averaged $28.70 a ton, a little above a year earlier and a third above the 1965-69 average. Prices were up 5-10% in the North Central States, where most of the country's crop is grown. In the eastern part of the Nation, prices are running 2 to 7% above a year ago. Prices in the Mountain and Pacific States are averaging around 11% above last summer.

Pet Food Growth Boosts Protein Feed Demand

by
Malcolm Clough

ABSTRACT: Rapid gains in pet food output during the past decade have contributed to the growing demand for feed ingredients. The Census reported a 68% increase in pet food shipments from 1958 to 1967. Annual output of pet foods and other special feeds is now estimated at over 4 million tons with the total value exceeding $1 billion. Since these feeds are high in protein content, they draw heavily on domestic supplies of high-protein feeds.

Key Words: Dog foods, cat foods, special feeds, feed ingredients.

Rapid growth has characterized the pet food industry over the past 15 years. The Census of Manufactures reported total shipments of dog and cat foods at 2.7 million tons in 1967, a 22% gain over the previous Census year (1963), 68% above 1958 shipments and more than double those of 1954. During this period the value of these products rose from $242 million to $700 million. The quantity shipped from processing plants has not been reported since the 1967 Census year, but the value of shipments rose another 19% in 1968 followed by a 17% increase, up to $970 million in 1969.

In addition to the pet foods the Census reported special feeds, such as feeds for fur bearing and laboratory animals, birds, rabbits, etc., at 711,000 tons, bringing the total shipments of all these feeds in 1967 to about 3½ million tons. Allowing for recent growth rates these figures would indicate that the total output of all these feeds currently exceeds 4 million tons with a value of over $1 billion.

Dog and cat foods

Year	Quantity shipped	Value	Value per ton
	1,000 tons	*Mil. dol.*	*Dol.*
1958	1,637	305	186
1963	2,257	442	196
1964	2,387	492	206
1965	2,348	508	216
1966	2,364	568	240
1967	2,749	700	255
1968	([1])	831	([1])
1969	([1])	970	([1])

[1] Not yet available.

Source: 1958-67 Census of Manufactures, Grain Mill Products, Bureau of the Census, U.S. Department of Commerce; 1968 and 1969 Annual Survey of Manufactures.

Expansion in the demand for pet foods reflects a change in feeding practices and increasing pet population. There are an estimated 26 million family-owned dogs and 21 million cats in the United States.* Dogs and cats once were fed almost entirely from table scraps. Now much of their diet is provided by commercially prepared rations. The typical supermarket carries over 100 different pet foods. New kinds, introduced since 1958, represent over four-fifths of the items now stocked.*

Sharp growth of the pet food industry is important to the overall feed picture since pets share in the Nation's total feed concentrate supply. Pet foods and specialty feeds, although still relatively small as compared with the total feeds consumed by farm livestock, are increasing in significance. They now equal more than 2% of the total tonnage of all feed concentrates consumed and a somewhat higher percentage of the protein feeds. These feeds, however, do not consist entirely of the grains and proteins available for livestock and poultry feeding. Ingredients also include foods (meats, flour, sirup, starch, etc.) and some nonfeed items such as horse meat and seeds.

Kinds of Ration

Pet foods are sold in three major categories: (1) Dry (meal, pellets and biscuits); (2) Canned; and (3) Moist or semi-moist. Dry pet foods come largely from our conventional supplies of feed concentrates. Most of these are made from a combination of the following ingredients: ground corn or corn meal, soybean meal, meat meal, wheat byproducts, corn glutten meal, animal fats, oat meal, fish meal, dried milk products, alfalfa meal, minerals and vitamins. These foods are typically around 23 to 25% protein, 7 or 8% fat and 10 to 12% moisture.

The canned dog and cat foods are much higher in animal and fish proteins, although some have many of the products contained in the dry foods. Many of the canned foods are largely or entirely meat. They typically are horse meat, chicken or beef, fish, fishmeal, or meat byproducts. Some of these foods also include cracked

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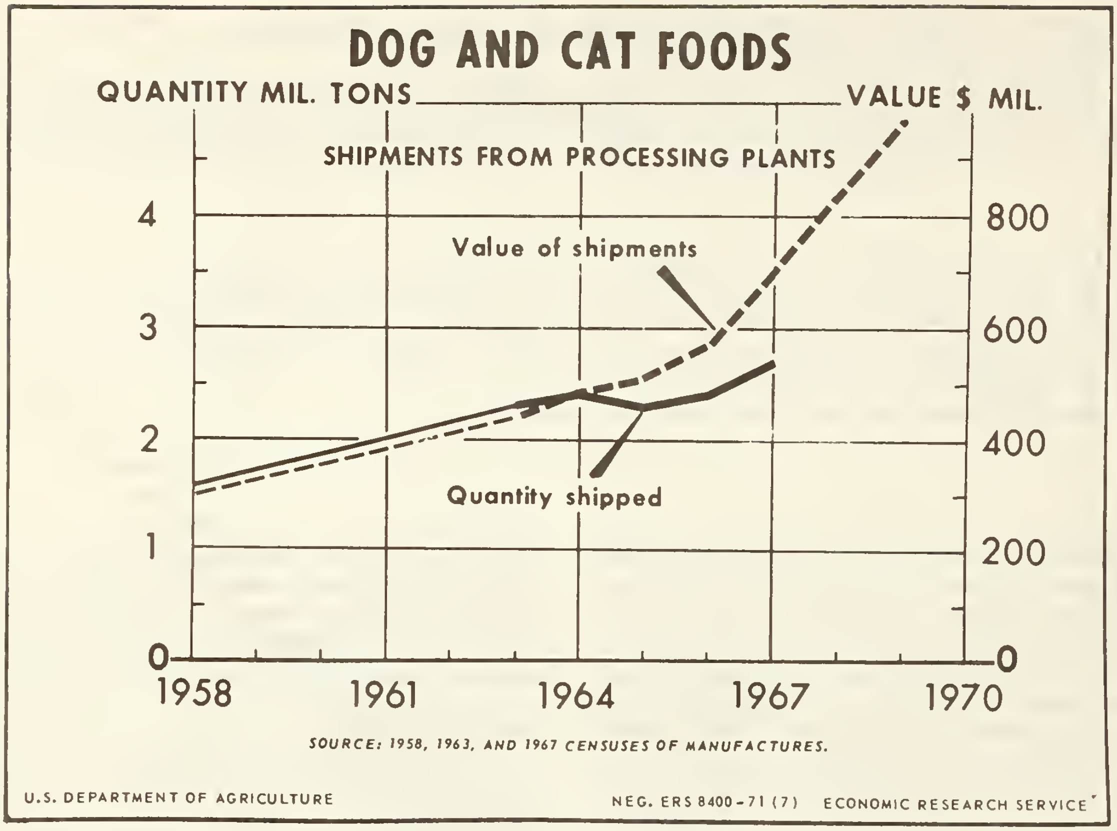
*Source: Pet Food Institute "Fact Sheet," 1970.



DOG AND CAT FOODS

SOURCE: 1958, 1963, AND 1967 CENSUSES OF MANUFACTURES.

U.S. DEPARTMENT OF AGRICULTURE NEG. ERS 8400-71 (7) ECONOMIC RESEARCH SERVICE

barley, wheat byproducts, or other grain products. These feeds generally are around 70 to 80% moisture, 10 to 12% protein, and 2 or 3% fat.

The moist or semi-moist packaged foods are generally high in meat and meat byproducts, but usually also contain soybean meal and animal fats. The moisture content generally is around 30%. They are typically 20% protein, higher than the dry foods but lower than the canned foods (after adjusting for moisture content). Fat content is usually 6 or 7%.

Pet food shipments from plants in 1967

Item	Quantity shipped	Percent of Total	Value
	1,000 tons	*Percent*	*Mil. Dol.*
Dog food			
Canned	950	34	238
Dry	1,065	39	220
Total	2,015	73	458
Cat food			
Canned:			
Fish base	147	6	42
Meat base	122	4	44
Total	269	10	86
Other dog and cat foods	285	10	110
Other pet foods[1]	180	7	46
Total pet foods	2,749	100	700

[1] Not specified by kind. Source: Census of Manufactures, 1967.

Pet Foods High In Protein Ingredients

Ingredients of the pet foods and their protein content indicate that they draw heavily on domestic high-protein feed supplies. The marked increase in the production of these feeds has contributed significantly to the rising demand for high-protein feeds. Consumption of high-protein feeds rose about 35% from 1958 to 1969. Pet food consumption increased at a much faster pace, about doubling in that period. Information from Census and the trade indicates that around 30 to 40% of the ingredients going into pet foods come from our high-protein feed supply. This would mean about 5 to 8% of our high-protein feeds are going to the pet food industry. This added demand for proteins has been at least a partial offset to the inroads that urea has made into protein markets for ruminant feeds.

Dog Foods Lead

Dog foods account for a major part of all pet foods sold. In 1967 dog foods made up 73% of the total shipments from processing plants, cat foods 10%, and other pet foods, including dog and cat foods not specified by kinds, the remaining 17%. Shipments of dog foods totaled a little over 2 million tons; roughly half of this was canned and half was dry foods. Canned cat foods totaled 269,000 tons. About 55% of this was fish base and 45% was meat products.

Special Feeds

In addition to the pet foods the Census reported 711,000 tons of specialty feeds for fur bearing and laboratory animals, rabbits, and other small animals and birds. Fur bearing animals accounted for a little over a third of the total tonnage of these feeds. Another 17% was for rabbit feed and 12% for bird feeds. Feeds for fur bearing animals are sold principally in the Northern States where most of these animals are grown. Minnesota, for example, reported that feeds sold for such animals slightly exceeded sales of dog foods. In other States reporting kinds of pet foods, dog foods were by far the most important.

Specialty feeds—Shipments from plants in 1967

Type	Quantity	Value
	1000 tons	*Mil. Dol.*
Laboratory animals	54	6.8
Fur bearing animals	251	29.1
Bird feeds	86	8.7
Rabbit	123	10.6
Other	197	16.7
Total	711	71.9

Census of Manufactures, 1967.

States Reporting Pet Food Sales

In addition to the Census data a number of States include pet foods in their current reports of sales of formula feeds and feed ingredients. In the past 10 years pet food sales have been reported consistently by 13 of these States, as shown in the table below. These figures do not necessarily indicate the total tonnage sold in the States, since most States do not include sales in packages of 10 pounds or less. Increases in sales reported by these States, however, coincide rather closely with the increase in shipments reported by Census. Sales in these 13 States increased 23% from 1958 to 1963 and by nearly 70% from 1958 to 1967. During the Census years, 1958, 1963, and 1967, sales in the 13 States were about a fourth as large as the total shipments of pet feeds reported by Census. The sales in these States made a further gain of nearly 20% from 1967 to 1969.

Sales of pet foods in specified States, 1958-69[1]

State	1958	1963	1964	1965	1966	1967	1968	1969
	1,000 tons	*1,000 tons*	*1,000 tons*	*1,000 tons*	*1,000 tons*	*1,000 tons*	*1,000 tons*	*1,000 tons*
Pennsylvania	128	128	158	158	157	150	147	182
Indiana	28	37	38	34	42	51	47	58
Iowa	28	29	(2)	30	28	(2)	(2)	48
Minnesota	11	30	(2)	30	29	32	28	30
Missouri	23	51	48	50	52	61	56	73
Wisconsin	26	26	33	37	33	54	57	59
Colorado	19	41	28	29	33	36	42	44
Arizona	14	23	23	24	26	26	33	36
Arkansas	11	20	21	24	26	30	33	40
Mississippi	16	24	29	30	32	36	41	42
North Carolina	21	31	30	42	43	41	40	41
Oklahoma	25	37	34	39	43	46	51	56
Florida	(2)	65	67	74	71	70	79	(2)
Total (13 States)	400	542	569	601	615	668	696	800

[1] Data for most States do not include feeds registered under the annual registration fee sold in packages of 10 pounds or less.
[2] Not available. The total includes an allowance for sales in these States based on sales in other years. Data for some States include feed for rabbits, fur bearing and laboratory animals.

Compiled from reports of State Departments of Agriculture.

Table 12.--Comparisons of feed grain and wheat farm prices, July 15, 1969-71 1/

Region	1969	1970	1971	Region	1969	1970	1971
	Dol. per cwt.				Dol. per cwt.		
Mid-Atlantic				W. South Central			
Corn	2.46	2.55	2.82	Grain sorghum	1.82	1.93	2.37
Wheat	2.03	2.22	2.50	Wheat	1.98	2.07	2.38
Difference	-.43	-.33	-.32	Difference	.16	.14	.01
South Atlantic				Mountain			
Corn	2.48	2.59	2.93	Barley	1.91	1.68	2.19
Wheat	2.00	2.15	2.42	Wheat	1.95	1.98	2.18
Difference	-.48	-.44	-.51	Difference	.04	.30	-.01
E. North Central				Pacific			
Corn	2.16	2.34	2.52	Barley	2.42	2.19	2.56
Wheat	1.92	2.15	2.28	Wheat	2.20	2.20	2.48
Difference	-.24	-.19	-.24	Difference	-.22	.01	-.08
W. North Central				U. S.			
Corn	2.02	2.09	2.34	Corn	2.11	2.21	2.43
Wheat	1.88	1.98	2.15	Wheat	1.92	2.05	2.23
Difference	-.14	-.11	-.19	Difference	-.19	-.16	-.20

1/ No adjustments made for relative feed values.

Table 13.--Oats and barley: Loan rates and prices in specified States

State	1970			1971		
	Range in county loan rates	Price rec'd by farmers July 1970	Difference	Range in county loan rates	Price rec'd by farmers July 1971	Difference
	Dollars per bushel					
	OATS					
Ill.	$0.65-0.69	$.58	$-.09	$0.57-0.61	$.66	$+.07
Mich.	.65- .67	.61	-.05	.57- .59	.67	+.09
Wisc.	.63- .67	.66	+.01	.55- .59	.70	+.13
Minn.	.54- .63	.56	-.03	.46- .55	.58	+.08
Iowa	.62- .66	.57	-.07	.53- .58	.65	+.09
N. Dak.	.49- .55	.48	-.04	.42- .48	.48	+.03
S. Dak.	.54- .61	.52	-.06	.46- .53	.53	+.04
U.S.	$0.63	$.58	-.05	$0.54	.63	+.09
	BARLEY					
Minn.	$0.77-0.92	$.86	+.02	$0.75-0.90	$.95	+.13
N. Dak.	.66- .80	.78	+.05	.64- .78	.83	+.12
S. Dak.	.71- .87	.79	0	.65- .81	.81	+.08
Mont.	.60- .80	.67	-.03	.60- .80	.95	+.25
Idaho	.77- .90	.85	+.01	.75- .88	1.16	+.34
Wash.	.86-1.01	.81	-.13	.84- .99	.99	+.07
Oreg.	.80-1.01	.89	-.01	.78- .99	1.15	+.26
Calif.	.90-1.07	1.10	+.12	.91-1.09	1.28	+.28
U.S.	$0.83	$.90	+.07	$0.81	1.07	+.26

1/ Difference between price and midpoint of loan rates.

Table 14.--Feed grains: Domestic disappearance and exports, by quarters, United States, 1965-71

Year beginning October	October-December		January-March		April-June		July-September		Total October-September	
	Domestic disappearance	Exports 1/	Domestic disappearance	Exports 1/	Domestic disappearance	Exports 1/	Domestic disappearance	Exports 1/	Domestic disappearance	Exports 1/
	Million bushels									
	CORN									
Average 1965-69	1,128	173	1,009	133	888	136	802	149	3,827	591
1965	994	197	1,007	171	903	177	801	142	3,705	687
1966	1,141	140	837	126	865	107	805	114	3,648	487
1967	1,143	183	895	158	899	129	852	163	3,789	633
1968	1,165	158	1,121	71	839	134	782	173	3,907	536
1969 2/	1,193	186	1,187	139	935	133	771	154	4,086	612
1970 2/	1,212	156	1,093	120	875	93				
	GRAIN SORGHUM									
Average 1965-69	240	47	184	47	134	35	50	53	608	182
1965	211	50	181	73	129	62	61	81	582	266
1966	210	75	230	65	132	59	42	49	614	248
1967	212	55	168	48	128	21	37	42	545	166
1968	256	28	186	16	137	20	56	42	635	106
1969 2/	312	29	153	33	144	15	54	49	663	126
1970 2/	277	51	203	52	169	12				
	OATS									
Average 1965-69	146	5	219	2	181	4	284	4	830	15
1965	144	13	226	2	207	13	275	9	852	37
1966	166	7	220	1	170	3	272	5	828	16
1967	129	1	207	2	171	2	272	3	779	8
1968	151	2	232	1	176	2	300	2	859	7
1969 2/	138	1	211	1	183	1	300	2	832	5
1970 2/	169	14	211	1	191	1				
	BARLEY									
Average 1965-69	79	9	87	6	78	12	112	11	356	38
1965	68	22	93	15	67	23	95	15	323	75
1966	88	10	81	7	75	13	102	13	346	43
1967	75	7	76	9	81	2	105	3	337	21
1968	83	4	88	1	81	5	121	1	373	11
1969 2/	82	1	95	3/	84	15	140	23	401	39
1970 2/	93	17	101	22	89	15				
	TOTAL (Million tons) 4 GRAINS									
Average 1965-69	42.5	6.5	39.0	5.2	33.4	5.1	31.1	6.0	146.0	22.8
1965	37.7	7.7	39.1	7.2	33.8	7.5	30.8	6.7	141.4	29.1
1966	42.6	6.4	35.3	5.5	32.4	5.0	30.5	5.0	140.8	21.9
1967	41.8	6.8	34.9	6.0	33.4	4.3	31.8	5.9	141.9	23.0
1968	44.2	5.3	42.4	2.5	32.1	4.4	31.2	6.2	149.9	18.4
1969 2/	46.3	6.1	43.2	4.8	35.2	4.5	31.2	6.3	155.9	21.7
1970 2/	46.6	6.4	42.1	5.3	34.4	3.3				

1/ Includes grain equivalent of products. 2/ Preliminary. 3/ Less than 500,000 bushels.

Table 15.--Feed grains: Acreage, yield and production, United States, average 1965-69, annual 1967-71

Feed grain	Unit	Average 1965-69	1967	1968	1969	1970 1/	1971 2/
Corn							
Planted	1,000 acres	66,424	71,093	65,126	64,476	67,171	74,651
Harvested 3/	1,000 acres	56,660	60,557	55,880	54,598	57,359	64,392
Yield	Bu.	77.4	78.6	78.6	83.9	71.7	83.0
Production	1,000 bu.	4,387,516	4,760,076	4,393,273	4,582,534	4,109,792	5,345,057
Grain Sorghum							
Planted	1,000 acres	17,586	19,007	18,014	17,457	17,292	20,714
Harvested 3/	1,000 acres	13,674	14,999	13,995	13,525	13,751	16,340
Yield	Bu.	53.1	50.4	52.9	55.3	50.7	55.6
Production	1,000 bu.	726,120	755,936	739,695	747,280	697,050	908,086
Oats							
Planted	1,000 acres	22,931	20,646	23,166	23,532	24,492	21,926
Harvested 3/	1,000 acres	17,564	16,017	17,533	17,930	18,580	15,693
Yield	Bu.	50.2	49.3	53.6	53.0	48.9	56.4
Production	1,000 bu.	881,325	789,196	939,228	950,023	909,481	885,049
Barley							
Planted	1,000 acres	10,405	10,002	10,477	10,311	10,435	11,182
Harvested 3/	1,000 acres	9,553	9,177	9,709	9,531	9,642	10,206
Yield	Bu.	42.0	40.6	43.6	44.4	42.6	45.3
Production	1,000 bu.	400,974	372,898	422,959	423,547	410,445	462,731
Four feed grains							
Planted	Mil. acres	117.3	120.7	116.8	115.8	119.4	128.5
Harvested 3/	Mil. acres	97.5	100.8	97.1	95.6	99.3	106.6
Yield	Tons	1.71	1.75	1.74	1.83	1.60	1.88
Production	Mil. tons	166.9	176.0	168.9	174.6	159.0	200.4

1/ Preliminary. 2/ Acreage based on July 1 indications; yield and production, August 1 indications.
3/ Harvested for grain.

Table 16 .--Corn, oats and barley: Production by regions, average 1965-69, annual 1967-71

Year	North Atlantic	East North Central	West North Central	South Atlantic	South Central	Western	United States
				1,000 bu.			
				CORN FOR GRAIN			
Average 1965-69	81,588	1,839,287	1,971,474	263,070	187,301	44,796	4,387,516
1967	108,636	1,997,299	2,049,053	336,000	222,257	46,831	4,760,076
1968	77,171	1,806,576	2,041,604	246,110	174,021	47,791	4,393,273
1969	99,654	1,871,992	2,133,888	255,432	166,150	55,418	4,582,534
1970 1/	107,266	1,606,556	1,978,468	218,486	135,361	63,655	4,109,792
1971 2/	118,014	2,005,636	2,641,594	305,925	194,416	79,472	5,345,057
				OATS			
Average 1965-69	48,060	234,535	509,567	19,420	35,621	34,122	881,325
1967	44,722	213,063	464,385	18,666	22,795	25,565	789,196
1968	53,967	256,651	543,766	18,937	36,178	29,729	939,228
1969	45,288	223,256	573,070	19,959	43,944	44,506	950,023
1970 1/	49,480	211,245	524,674	18,741	51,006	54,335	909,481
1971 2/	43,966	205,502	560,330	20,879	20,562	33,810	885,049
				BARLEY			
Average 1965-69	10,884	5,106	145,821	15,122	14,419	209,622	400,974
1967	11,496	4,978	139,483	15,857	7,296	193,788	372,898
1968	11,699	6,907	177,664	15,284	15,130	196,275	422,959
1969	11,465	4,906	146,989	15,793	20,784	223,610	423,547
1970 1/	10,810	4,623	112,648	16,084	25,428	240,852	410,445
1971 2/	11,520	5,026	173,719	17,837	16,663	237,966	462,731

1/ Preliminary. 2/ August 1 indications.

Table 17.--Corn: Acreage planted by regions, average 1965-69, annual 1963-71

Year	North Atlantic	East North Central	West North Central	South Atlantic	South Central	Western	United States
				1,000 acres			
Average 1965-69	2,250	23,334	29,617	5,605	4,409	1,209	66,424
1963	2,125	21,399	32,607	5,913	5,743	984	68,771
1964	2,126	22,145	29,649	5,655	5,246	1,002	65,823
1965	2,195	22,837	28,829	5,504	4,701	1,053	65,119
1966	2,199	23,731	29,036	5,593	4,592	1,155	66,306
1967	2,277	24,800	32,352	5,861	4,549	1,254	71,093
1968	2,247	22,900	29,058	5,585	4,114	1,222	65,126
1969	2,334	22,404	28,808	5,480	4,087	1,363	64,476
1970 1/	2,447	23,456	30,304	5,666	3,877	1,421	67,171
1971 2/	2,712	25,424	34,673	5,960	4,197	1,685	74,651

1/ Preliminary. 2/ Based on July 1 indications.

Table 18.--Sorghum: Acreage planted in leading States, average 1965-69, annual 1963-71

Year	Texas	Oklahoma	Kansas	Nebraska	New Mexico	Arizona	California	Other States	United States
					1,000 acres				
Average 1965-69	7,069	997	4,145	2,309	366	219	407	2,074	17,586
1963	6,579	1,234	5,066	2,148	328	140	276	1,745	17,516
1964	6,250	1,061	4,306	2,341	285	147	306	2,074	16,770
1965	6,125	987	4,048	2,692	294	187	343	2,403	17,079
1966	6,370	938	3,805	2,423	326	208	410	1,892	16,372
1967	7,771	1,097	4,338	2,544	424	254	451	2,128	19,007
1968	7,538	976	4,468	2,035	390	239	383	1,985	18,014
1969	7,538	986	4,066	1,852	398	208	448	1,961	17,457
1970 1/	7,010	937	4,391	1,778	410	193	421	2,152	17,292
1971 2/	7,641	1,003	4,962	2,383	492	174	434	3,625	20,714

1/ Preliminary. 2/ Based on July 1 indications.

Table 19.--Sorghum grain: Production in leading States, average 1965-69, annual 1963-71

Year	Texas	Oklahoma	Kansas	Nebraska	New Mexico	Arizona	California	Other States	United States
					1,000 bushels				
Average 1965-69	319,963	23,909	154,931	121,564	16,124	16,232	26,603	46,794	726,120
1963	242,660	21,535	147,771	102,465	12,152	7,488	16,974	34,349	585,394
1964	215,648	14,050	98,508	90,850	9,200	9,286	19,600	32,654	489,796
1965	294,056	21,830	139,426	121,498	12,488	12,450	23,700	47,250	672,698
1966	311,696	20,280	139,601	142,052	15,939	15,015	27,504	42,905	714,992
1967	343,485	25,802	149,408	123,904	19,154	19,926	27,560	46,697	755,936
1968	340,780	26,158	163,325	101,732	16,182	18,249	25,200	48,069	739,695
1969	309,800	25,474	182,896	118,636	16,856	15,522	29,049	49,047	747,280
1970 1/	329,616	23,306	145,960	76,449	17,499	12,670	29,304	62,246	697,050
1971 2/	306,050	28,160	227,248	153,106	17,888	12,210	29,970	133,454	908,086

1/ Preliminary. 2/ Based on August 1 indications.

Table 20.--Feed grain stocks: Quarterly distribution, 1968-71

Year	Farm	Commodity Credit Corporation 1/	Terminal market, mill, elevator and warehouse	Total	Farm	Commodity Credit Corporation 1/	Terminal market, mill, elevator and warehouse	Total
	1,000 bushels							
	CORN							
	January 1				April 1			
1968	3,391,263	97,846	768,215	4,257,324	2,394,728	97,870	712,076	3,204,674
1969	3,276,322	149,156	807,894	4,233,372	2,223,680	148,992	668,236	3,040,908
1970	3,323,278	144,243	848,894	4,316,415	2,223,238	135,285	632,542	2,991,065
1971 2/	2,729,548	97,366	916,113	3,743,027	1,860,980	59,196	611,024	2,531,200
	July 1				October 1 3/			
1968	1,646,440	97,785	432,793	2,177,018	781,762	103,312	277,181	1,162,255
1969	1,486,739	145,982	435,674	2,068,395	728,220	143,319	241,855	1,113,394
1970	1,403,519	117,822	401,740	1,923,081	569,390	111,287	318,306	998,983
1971 2/	1,169,184	37,593	357,511	1,564,288				
	GRAIN SORGHUM							
	January 1				April 1			
1968	213,026	4,572	514,769	732,367	142,130	4,586	370,321	517,037
1969	221,739	4,600	518,764	745,103	129,823	4,598	408,768	543,189
1970	191,147	4,581	498,925	694,653	122,103	4,577	381,318	507,998
1971 2/	155,254	4,602	454,464	614,320	90,834	3,169	264,912	358,915
	July 1				October 1 3/			
1968	90,719	4,587	272,821	368,127	58,145	4,586	226,362	289,093
1969	83,816	4,583	297,908	386,307	53,206	4,583	230,457	288,246
1970	70,251	5,230	273,688	349,169	40,606	5,258	199,977	245,841
1971 2/	36,477	1,029	140,352	177,858				
	OATS							
	January 1				April 1			
1968	548,803	6,668	97,710	653,181	361,671	6,665	76,869	445,205
1969	660,692	6,656	116,571	783,919	442,820	6,650	102,727	552,197
1970	724,299	7,965	153,021	885,285	529,357	7,914	136,730	674,001
1971 2/	703,782	11,370	199,401	914,553	503,531	11,305	188,235	703,071
	July 1 3/				October 1			
1968	206,173	6,668	59,843	272,684	782,012	6,658	147,997	936,667
1969	275,218	6,664	93,285	375,167	830,755	7,884	185,844	1,024,483
1970	344,679	8,032	137,780	490,491	851,782	11,318	234,682	1,097,782
1971 2/	311,800	11,307	188,712	511,819				
	BARLEY							
	January 1				April 1			
1968	184,640	3,902	114,637	303,179	129,092	3,946	85,320	218,358
1969	247,666	3,916	119,982	371,564	183,783	3,917	95,117	282,817
1970	264,586	4,915	157,236	426,737	198,512	4,906	128,693	332,111
1971 2/	238,931	5,132	137,060	381,123	142,346	5,081	109,938	257,365
	July 1 3/				October 1			
1968	71,524	3,944	62,200	137,668	303,093	3,931	147,208	454,232
1969	114,875	3,927	80,682	199,484	314,135	4,991	185,803	504,929
1970	136,699	4,892	95,414	237,005	305,606	5,304	178,529	489,439
1971 2/	81,561	4,993	69,536	156,090				

1/ CCC owned at binsites; excludes grain owned by CCC in other positions. 2/ Preliminary. 3/ Old crop grain only.

Table 21.--Feed grain stocks owned by Commodity Credit Corporation, 1968-71 1/

(1st of month)

	January	February	March	April	May	June	July	August	September	October	November	December
	1,000 bushels											
	CORN											
1968	137,977	137,765	137,231	136,861	136,392	136,151	136,330	136,265	156,010	182,306	244,205	257,579
1969	260,519	258,684	257,774	257,431	259,206	263,768	270,158	266,793	288,895	295,100	300,309	297,465
1970	296,360	294,563	292,415	285,158	279,028	273,109	263,620	262,674	255,985	254,901	231,742	224,792
1971	215,403	195,554	172,806	150,090	136,248	124,796	97,313	98,931				
	GRAIN SORGHUM											
1968	192,656	192,543	192,023	191,726	191,610	191,817	191,542	192,128	192,445	192,469	192,859	192,474
1969	192,447	192,413	192,420	192,223	192,962	193,334	192,939	197,522	198.810	198,678	196,001	192,024
1970	188,097	181,560	176,281	169,848	164,700	170,132	167,639	176,488	174,143	173,192	166,942	165,480
1971	162,617	154,808	150,754	131,857	122,963	102,495	79,141	77,244				
	OATS											
1968	45,106	45,090	45,047	44,977	45,006	45,005	45,206	45,307	45,722	45,783	45,895	45,915
1969	45,916	45,907	45,910	45,922	46,043	47,136	61,088	67,884	74,554	75,867	76,650	76,512
1970	76,453	76,467	76,510	76,990	76,937	80,959	115,357	129,716	143,222	145,208	145,824	145,672
1971	145,535	145,033	144,997	141,808	138,616	142,521	180,989	193,924				
	BARLEY											
1968	5,655	5,682	5,679	5,673	5,667	5,682	5,868	5,952	6,363	6,442	6,491	6,504
1969	6,506	6,503	6,486	6,600	7,064	8,322	26,736	34,785	45,752	47,780	48,531	48,621
1970	48,707	48,667	48,692	48,724	48,994	47,268	55,424	51,100	54,207	54,294	54,225	44,778
1971	27,819	27,037	27,253	23,937	24,064	24,228	29,616	33,756				

1/ Includes grain in CCC stocks sold or committed for sales.

Compiled from operating reports of Agricultural Stabilization and Conservation Service, USDA.

Table 22.--Livestock, poultry and milk/feed price ratios, 1966-70, average, by months, 1966-70

Year beginning October	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Average
	HOG/CORN, U.S. Basis 1/												
Average 2/ 1966-70	17.6	17.0	16.5	19.1	19.5	18.6	17.6	18.1	18.7	19.3	19.0	17.8	18.2
1966	16.4	15.3	14.7	14.8	15.0	14.0	13.5	17.2	16.7	17.8	18.4	17.1	15.9
1967	17.3	17.6	16.2	16.9	17.8	17.5	17.5	16.8	18.1	20.0	19.5	19.3	17.9
1968	18.6	16.8	17.0	17.3	18.0	18.3	17.6	18.7	20.3	21.1	21.9	21.7	18.9
1969	22.1	23.4	23.7	23.6	24.1	22.7	20.7	19.5	19.2	19.2	17.0	14.3	20.8
1970 3/	13.4	11.9	11.1	10.7	13.4	11.8	11.3	12.3	12.2	14.0			
	BEEF-STEER/CORN, Omaha 4/												
Average 2/ 1966-70	21.6	21.4	21.0	21.1	21.7	22.5	22.0	21.9	22.2	22.3	22.4	22.0	21.8
1966	18.4	17.7	17.2	18.3	18.1	17.9	18.4	18.7	19.2	20.3	22.5	22.9	19.1
1967	22.5	22.7	22.0	21.8	22.4	22.4	21.8	21.3	21.9	23.4	24.8	23.2	22.7
1968	22.6	22.9	23.5	22.8	22.8	23.5	24.0	25.4	26.6	25.2	24.6	24.3	24.0
1969	23.5	23.4	23.9	23.3	24.2	25.8	24.9	23.6	23.8	23.9	21.9	20.7	23.6
1970 3/	21.2	20.1	18.5	19.7	21.8	21.8	22.3	22.3	21.6	22.6			
	MILK/FEED, U.S. Basis 5/												
Average 2/ 1966-70	1.77	1.78	1.75	1.67	1.64	1.62	1.58	1.56	1.54	1.59	1.64	1.72	1.66
1966	1.66	1.66	1.61	1.57	1.53	1.52	1.46	1.46	1.43	1.48	1.55	1.64	1.55
1967	1.68	1.72	1.69	1.68	1.65	1.62	1.60	1.60	1.58	1.64	1.72	1.79	1.66
1968	1.85	1.86	1.83	1.80	1.76	1.73	1.69	1.65	1.61	1.65	1.70	1.80	1.74
1969	1.85	1.87	1.85	1.81	1.77	1.73	1.72	1.67	1.65	1.68	1.69	1.74	1.75
1970 3/	1.79	1.81	1.78	1.68	1.67	1.65	1.64	1.60	1.56	1.61			
	EGG/FEED, U.S. Basis 6/												
Average 2/ 1966-70	8.6	9.4	10.0	9.9	9.2	9.1	8.2	7.3	7.4	8.3	8.3	9.4	8.8
1966	9.3	9.5	9.3	8.6	7.5	7.9	6.9	6.7	6.3	7.0	7.0	7.5	7.8
1967	6.8	7.2	7.8	7.9	7.5	7.6	7.2	6.8	7.6	8.2	8.7	10.9	7.8
1968	9.6	9.9	10.7	10.9	9.9	10.1	9.3	7.6	7.8	9.4	8.9	10.0	9.5
1969	10.1	12.3	13.5	13.0	11.4	10.1	8.4	7.3	7.4	8.6	7.9	9.0	9.8
1970 3/	7.4	8.3	8.7	8.2	7.4	7.2	7.2	6.7	6.5	6.3			
	BROILER/FEED, U.S. Basis 7/												
Average 2/ 1966-70	2.9	2.9	2.8	3.2	3.3	3.3	3.2	3.2	3.3	3.3	3.2	3.0	3.1
1966	2.9	3.0	2.6	2.9	3.2	3.0	3.0	2.8	2.9	3.1	2.8	2.7	2.9
1967	2.7	2.6	2.7	3.0	3.3	3.2	3.2	3.3	3.4	3.5	3.4	3.2	3.1
1968	2.9	3.0	3.1	3.2	3.4	3.4	3.3	3.4	3.5	3.8	3.6	3.4	3.3
1969	3.3	3.2	3.0	3.2	3.0	3.1	2.9	2.9	2.9	2.8	2.8	2.7	3.0
1970 3/	2.5	2.6	2.4	2.6	2.8	2.7	2.7	2.9	3.0	3.2			

1/ Number bushels of corn equal in value to 100 lbs. of hog liveweight. 2/ Calendar year averages. 3/ Preliminary. 4/ Based on price of beef-steers all grades sold out of first hands for slaughter and No. 2 Yellow corn. 5/ Pounds concentrate ration equal in value to one lb. whole milk. 6/ Number of lbs. of laying feed equal in value to one dozen eggs. 7/ Number of lbs. of broiler grower feed equal in value to one lb. broiler liveweight.

Table 23.--Production, stocks, and foreign trade in processed feeds, foreign trade in feed grains, and corn and barley processing, specified months 1/

Commodity	Production					Stocks 2/				
	1970	1971				1970	1971			
	June	Mar.	Apr.	May	June	July 1	Apr. 1	May 1	June 1	July 1
	1,000 tons					1,000 tons				
Processed feeds										
Soybean meal	1,511.5	1,507.4	1,505.4	1,501.5	1,445.5	213.1	153.2	168.1	219.3	168.9
Cottonseed meal	74.1	192.2	145.3	111.1	86.6	140.7	136.4	134.5	148.9	138.2
Linseed meal	21.3	30.7	32.7	33.1	37.1	18.2	20.1	20.9	3/	9.4
Peanut meal	8.6	18.0	18.8	18.5	18.2	6.8	7.2	10.1	10.5	11.8
Meat meal and tankage	161.9	176.2	161.8	165.3	179.9	---	---	---	---	---
Fish meal and solubles	55.4	4.9	15.1	36.4	68.7	---	---	---	---	---
Brewers' dried grains	33.8	32.1	32.1	32.4	36.0	6.0	4.7	4.1	4.2	5.2
Distillers' dried grains	33.9	36.3	28.7	28.6	27.8	1.5	1.5	1.2	1.5	.9
Wheat millfeeds	353.2	362.6	334.9	346.7	366.0	---	---	---	---	---
Rice millfeeds	39.9	40.7	28.8	30.5	35.8	---	---	---	---	---
Alfalfa meal, dehydrated	366.1	23.5	34.6	202.8	369.4	463.3	145.8	79.6	174.2	376.8
sun-cured	31.2	26.4	22.6	21.9	27.4	9.0	11.5	7.4	5.5	4.8
Total	397.3	49.9	57.2	224.7	396.8	472.3	157.3	87.0	179.7	381.6
Inedible tallow	50.3	50.9	48.5	47.0	49.8	---	---	---	---	---

Commodity	Foreign trade									
	Exports					Imports				
	1970	1971				1970	1971			
	June	Mar.	Apr.	May	June	June	Mar.	Apr.	May	June
	1,000 tons					1,000 tons				
Soybean meal	324.6	413.0	383.8	342.3	358.6	---	---	---	---	---
Cottonseed meal	4/	5.6	6.4	.3	.3	0	0	0	0	0
Linseed meal	0	.1	.5	17.2	11.1	.1	.1	.2	.1	.1
Other oilseed meals	3.5	7.1	3.7	3.5	4.1	.1	0	.6	4/	.3
Fish meal	---	---	---	---	---	33.5	13.3	31.8	10.5	30.2
Molasses	3.8	.1	8.2	6.0	.3	162.4	269.0	327.8	185.4	243.4
Corn byproducts	59.5	41.0	45.3	36.3	82.7	---	---	---	---	---
Wheat millfeeds	.1	1.2	1.3	.1	.1	12.3	15.5	12.6	12.1	15.1
Alfalfa meal, dehydrated	22.7	26.8	17.3	17.7	22.7	---	---	---	---	---
sun-cured	18.8	14.5	13.0	22.1	26.5	---	---	---	---	---
Total	41.5	41.3	30.3	39.8	49.2	---	---	---	---	---
Mixed poultry feed	12.1	13.5	13.6	8.5	9.2	---	---	---	---	---
Mixed dairy feed	14.0	16.9	12.6	17.5	6.2	---	---	---	---	---
	1,000 bushels					1,000 bushels				
Feed grains (including products)										
Corn	40,758	35,260	36,186	28,320	28,162	127	309	338	210	29
Grain sorghum	4,091	14,963	4,464	4,765	3,238	5/	0	5/	0	0
Oats	351	216	212	405	69	106	156	133	90	114
Barley	7,815	7,574	3,994	9,198	1,637	1,415	49	77	1,106	1,062
Total (1,000 s. tons)	1,449	1,591	1,237	1,154	920	39	12	13	34	28

Commodity	Grain processing or use						
	1970		1971				
	May	June	February	March	April	May	June
	1,000 bushels						
Corn							
Distilled spirits & alcohol	2,584	2,214	2,444	2,239	1,863	1,729	*
Grain sorghum							
Distilled spirits & alcohol	223	227	283	277	306	319	*
Barley							
Malt liquors	10,156	10,907	7,590	10,404	9,878	9,967	*
Distilled spirits & alcohol	479	401	460	528	426	358	*

1/ Data compiled from reports of the Bureau of the Census, Consumer and Marketing Service, and National Marine Fisheries Service, Department of Commerce. 2/ At processors' plants. 3/ Not reported. 4/ Less than 50 tons. 5/ Less than 500 bushels.

* Not yet available.

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